

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 7 and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Regarding Claims 7 and 15, lines 1-2 of the claims cite "*before the step B: the LCS system sending to the requestor an LCS location response.*" The specification does not describe the LCS system sending to the requestor an LCS location response before the step of the client, handling the location estimate of the target UE, and sending to the LCS system (via GMLC) the location information acknowledgement with a handling result in such a way to enable one skilled in the art to make and/or use the invention. Furthermore the Figures 1-6 illustrate a location response sent to the requestor after step B of the claim.

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4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 8, lines 1-2 cite “a success flag indicating that the location estimate has been handled unsuccessfully by the client.” It is ambiguous as to why a success flag would indicate the location estimate has been handled “unsuccessfully” instead of successfully. Appropriate correction is required.

6. Claims 7 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 7, the claim cites “*the method according to Claim 2 further comprising before the step B: the LCS system sending to the requestor an LCS location response.*”

Regarding Claim 14, the claim cites “*a method according to claim 2, further comprising after the step B:*

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C. the LCS system, after receiving the location information acknowledgement with the handling result, sending to the requestor an LCS location response carrying the handling result"

It is ambiguous as to whether the LCS system sends to the requestor an LCS location response before or after the step B. Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanttinen US (2001/0009857) in view of Clubb et al. (US 2001/0034791)

Regarding Claim 1, Vanttinen discloses a handing method for providing a client with the location estimate of a target User Equipment (UE), the method comprising the steps of:

A. The LCS (location service) system (**see Fig. 3 step 302 & Fig. 1D, CN**) sending to the client (**see Fig. 4, LCS client**) the Location Information message (**see Fig. 4 INF message 428**) carrying the location estimate of the target UE, (**see Fig. 4 where LCS client receives message 428 (i.e., location information message) of subscriber terminal MS location (i.e., target UE) from GMLC. The GMLC received the location**

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information message 418 through SGSN. See Para [0063] i.e., location service & [0067-0069] i.e., client receives location information)

B. The client, handling the location estimate of the target UE (see Fig. 4 & Para [0069] lines 1-4 i.e., client handles the location estimate of the target UE when it is informed of the location of the subscriber terminal)

Vanttinen does not disclose the limitation in step B where the client is sending to the LCS system, Location Information Acknowledgement with a handling result, however the limitation is known in the art of communications by evidence of Clubb et al. (US 2001/0034791)

Referring to Fig. 7A, Clubb illustrates a communication of messaging between a client device 112 and back end server (BES) 122. The client device responds with acknowledgement message ("ACK" step 4 – step 5) back to the protocol gateway 118 which confirms the client has received the information sent from BES 122, **(see Para [0423-0429])**

Referring to Fig. 7B, Clubb illustrates an acknowledgement message 714 sent from client device 112 to protocol gateway 116. PG 716 can send acknowledgement of receipt of the complete multi-segment message (i.e., handling result) to MR 124, **(see Para [0434-0438])**

Clubb discloses a non-acknowledgement message may be received at the message router which indicates a message intended for a client device failed (i.e., handling result) to reach the client, (**see Para [0024]**)

Clubb teaches due to messaging solutions being device and network protocol specific, current developers of client computing solutions must have intimate knowledge of specific network characteristics e.g., wireless network characteristics, protocol environments, and wireless links channel characteristics. Therefore there exists a need to simplify wireless client and server application development environments to support the wide variety of device and network dependent architectures, (**see Para [0005]**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for sending to the LCS system, a location information acknowledgement with a handling result after a client handles the location estimate of the target UE by including the teachings of Vanttinen who discloses an LCS (location service) system sending to a client the location information message carrying the location estimate of the target UE, and the client handling the location estimate of the target UE within the teachings of Clubb who discloses sending an acknowledgement message with a handling result from a client to a back end server (BES) via a protocol gateway because the teaching lies in Clubb to simplify wireless client and server application development environments to support the wide variety of device and network dependent architectures.

Regarding Claim 2, the combination of Vanttinen in view of Clubb disclose a method according to Claim 1, further comprising before the step A: a requestor originating a LCS location request (**Vanttinen see Fig. 4, REQ 400**) against a target UE (**Vanttinen see Fig. 4 MS**) to the LCS system, (**Vanttinen see Fig. 3 step 302 & Para [0057]**)

requesting the LCS system to provide the location estimate of the target UE to a client, (**Vanttinen see Para [0058] i.e., informing an outside client**)

a location estimate of the target UE was successfully obtained by the LCS system, (**Vanttinen see Fig. 4, RSP 416 & Para [0064]**)

Regarding Claim 3 the combination of Vanttinen in view of Clubb disclose a method according to Claim 1, further comprising after the step B:

C. the LCS system, after receiving the Location Information Acknowledgement with the handling result, sending to the requestor an LCS Location Response carrying the handling result, (**Vanttinen, see Fig. 4, LOC 430 & Para [0070]**)

Regarding Claim 4, the combination of Vanttinen in view of Clubb disclose a method according to Claim 3, wherein the step C comprises the steps of:

C1. After receiving the Location Information Acknowledgement with the handling result, GMLC (gateway mobile location center) in the LCS system sending to CN (Core

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Network) in the LCS system a Subscriber Location Report Acknowledgment, which carrying the handling result, (**Vanttinen, see Fig. 4, ACK 420 & Para [0067]**) (**see Fig. 7B, where Clubb illustrates gateway PG 116 sending Msg1 Ack (step 716) to BES 122 via MR124, once it has received ACK 714 from client device 112, see Para [0436-0438]**)

C2. After receiving the Subscriber Location Report Acknowledgment, the CN sending to the requestor an LCS Location Response carrying the handling result, (**Vanttinen, see Fig. 4, LOC 430 & Para [0070]**)

Regarding Claim 5, the combination of Vanttinen in view of Clubb disclose a method according to Claim 1, wherein

the step A comprises the GMLC in the LCS system sending to the client a Location Information message carrying the location estimate of the target UE, (**Vanttinen, see Fig. 4 i.e., GMLC sends INF 428 to LCS client & Para [0068]**)

the step B comprises the client, after receiving the Location Information message, handling the location estimate of the target UE, (**Vanttinen, Para [0069] lines 1-4 i.e., client handles the location estimate of the target UE when it is informed of the location of the subscriber terminal**)

then sending to the GMLC the Location Information Acknowledgement carrying the handling result, (**Clubb, see Fig. 7B Ack 714 to gateway PG 116 & Para [0436]**)

Regarding Claim 6, the combination of Vanttinen in view of Clubb disclose a method according to Claim 5, further comprising before the step B:

GMLC in the LCS system sending to the CN in the LCS system the Subscriber Location Report Acknowledgement, (**Vanttinen, see Fig. 4 ACK 420 & Para [0067-0068]**)

(Determining whether the GMLC is to issue a subscriber location report acknowledgement to the CN (core network) before (*claim 6*) or after (*claim 4*) the client handles the location estimate of the target UE and sends an information acknowledgement with a handling result is merely a matter of obvious engineering design choice, because the teachings of Clubb et al. disclose the end result of whether a client device has received a message at a back end server (BES) is determined by the steps of a gateway sending an acknowledgement with a handling result of a client device to the back end server (BES), see *MPEP 2144*)

Regarding Claim 7, the combination of Vanttinen in view of Clubb disclose a method according to Claim 2, further comprising before the step B: the LCS system sending to the requestor an LCS Location Response, (**Vanttinen, see Fig. 4 RSP 414 & Para [0064]**)

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Regarding Claim 8, the combination of Vanttinen in view of Clubb disclose a method according to Claim 1, wherein the handling result comprises a success flag indicating that the location estimate has been handled unsuccessfully by the client, (**Clubb, see Para [0436-0437 i.e., complete multi-segment message has been received (i.e., success))**)

Regarding Claim 9, the combination of Vanttinen in view of Clubb disclose a method according to Claim 1, wherein the handling result comprises a failure flag indicating that the location estimate has been handled unsuccessfully by the client, (**Clubb, see Para [0024])**)

Regarding Claim 10, the combination of Vanttinen in view of Clubb disclose, a method according to Claim 9, wherein the handling result comprises further the error cause, (**Clubb, see Para [0552])**)

Regarding Claim 11, the combination of Vanttinen in view of Clubb disclose, a method according to Claim 1, wherein the requestor comprises the target UE being located or a third-party device other than the target UE, (**Vanttinen, see Para [0069])**)

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Regarding Claim 12, the combination of Vanttinen in view of Clubb disclose, a method according to Claim 4, wherein the CN comprises MSC (Mobile Switch Center)/MSC Server or SGSN (Serving GPRS Support Node, GPRS General Packet Radio Service), (**Vanttinen, see Fig. 1D, SGSN 140 & Para [0032]**)

Regarding Claim 13, the combination of Vanttinen in view of Clubb, disclose a method according to Claim 1, wherein the client comprises an LCS Client, (**Vanttinen, see Fig. 4 LCS client & Para [0068]**)

Regarding Claim 14, the combination of Vanttinen in view of Clubb discloses a method according to Claim 2, further comprising after the step B:

C. the LCS system, after receiving the Location Information Acknowledgement with the handling result, sending to the requestor an LCS Location Response carrying the handling result, (**Vanttinen, see Fig. 4, LOC 430 & Para [0070]**)

Regarding Claim 15, the combination of Vanttinen in view of Clubb disclose, a method according to Claim 5, further comprising before the step B: the LCS system sending to a requestor an LCS Location Response, (**Vanttinen, see Fig. 4 RSP 414 & Para [0064]**)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADNAN BAIG whose telephone number is (571) 270-7511. The examiner can normally be reached on Mon-Fri 7:30m-5:00pm eastern Every other Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ADNAN BAIG/
Examiner, Art Unit 2461

/Huy D Vu/

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Supervisory Patent Examiner, Art Unit 2461